Drainage Basin Master Plan
City of Dubuque, Iowa

Figure 4-3

Source: Dubuque Area Geographic Information System (DAGIS), dated May 2000

Legend:
- Drainage Subarea Boundary
- Drainage Network
- Streets
- Existing Detention Cell

Soil Classification:
- Dorchester-Volney Complex - Type B
- Fayette Silt Loam Complex - Type B
- Fayette-Urban Land Complex - Type B
- Nordness Rock Outcrop Complex - Type B
- Psammoids-Urban Land - Variable
- Urban Land-Dorchester Complex - Type B
- Urban Land-Lamont Complex - Type B
- Other

HDR Engineering, Inc.
Drainage Subarea Boundary

LEGEND

Drainage Subarea Boundary
Drainage Network

Land Use

ST - STREETS
IND - INDUSTRIAL
INS - INSTITUTIONAL
MD - MEDIUM DENSITY
LD - LOW DENSITY RESIDENTIAL
CO - COMMERCIAL
AG - AGRICULTURE
OP - OPEN SPACE AND GRASS

Notes:
1. Hydrologic analysis performed was based on ultimate land use development classification, except for agricultural land, where the land use was based on agriculture.
2. Missing data was supplemented, as directed by city staff.

Source: Dubuque Area Geographic Information System (DAGIS), dated May 2000

HDR Engineering, Inc.
Dowtown

City of Dubuque, Iowa

4-4
West 32nd Street Drainage Subarea
HEC-HMS Subbasin Delineation

Drainage Basin Master Plan
City of Dubuque, Iowa

Source: HEC-HMS CWRC PRE-PRO, ArcView Version 4

Note:
1. Subbasins 36, 51 and 61 are located downstream of the West 32nd Street Detention Cell and do not contribute to the cell.
West 32nd Street Drainage Subarea Detention Sites Investigated


Storage Alternatives

<table>
<thead>
<tr>
<th>ID NO.</th>
<th>LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>W32-ST-1</td>
<td>West 32nd Street Detention</td>
</tr>
<tr>
<td>W32-ST-9</td>
<td>Grandview Avenue</td>
</tr>
<tr>
<td>W32-DLT-1</td>
<td>Former Ski Area</td>
</tr>
<tr>
<td>W32-DLT-2</td>
<td>West 35th Street</td>
</tr>
<tr>
<td>W32-DLT-5</td>
<td>West 32nd Street/Carter Boulevard</td>
</tr>
<tr>
<td>W32-ST-12</td>
<td>Carter Boulevard</td>
</tr>
<tr>
<td>W32-DLT-3</td>
<td>Arabian</td>
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<tr>
<td>W32-DLT-4</td>
<td>Upper Carter Boulevard</td>
</tr>
<tr>
<td>W32-ST-13</td>
<td>Pedestrian Crossing</td>
</tr>
<tr>
<td>W32-ST-14</td>
<td>J. F. Kennedy</td>
</tr>
<tr>
<td>W32-ST-15</td>
<td>Northwest Arterial</td>
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</table>


HDR Engineering, Inc.

Drainage Boundary Master Plan
City of Dubuque, Iowa

Figure 4-8
Storage Alternatives

<table>
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<th>ID NO.</th>
<th>LOCATION</th>
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<tbody>
<tr>
<td>W32-ST-1</td>
<td>West 32nd Street Detention</td>
</tr>
<tr>
<td>W32-DET-4</td>
<td>Upper Corter Boulevard</td>
</tr>
<tr>
<td>W32-ST-13</td>
<td>Pedestrian Crossing</td>
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<tr>
<td>W32-ST-14</td>
<td>J. F. Kennedy</td>
</tr>
<tr>
<td>W32-ST-15</td>
<td>Northwest Arterial</td>
</tr>
</tbody>
</table>

Source: Dubuque Area Geographic Information System (DAGIS), Dated 2000.
Aerial Photography Date 1997.

West 32nd Street Drainage Subarea Detention Site Alternatives

HDR Engineering, Inc.

Drainage Bank Master Plan
City of Dubuque, Iowa

Date: Fall 2001
Figure: 4-9
Expanded Storage
Alt. W32-1, W32-2: Excavate to Expand Storage to 58 A.F.
Alt. W32-2, W32-4: Raise Berm to Expand Storage to 51 A.F.
Alt. W32-5: Excavate and Raise Berm to Expand Storage to 94 A.F.

Improved Outlet
Alt. W32-1, 2, 3, & 4: Remove Weir & Gate Control Structure. Use Existing Downstream Conduit.

Source: Dubuque Area Geographic Information System (DAGIS), Dated 2000.
Aerial Photography Date 1997.

City of Dubuque, Iowa
HDR Engineering, Inc.

West 32nd Street Drainage Subarea - West 32nd Street Detention Basin Improvements
Drainage Basin Master Plan

HDR

Fall 2001